

IN THE CLAIMS:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
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18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)
22. (Canceled)

- 23. (Canceled)
- 24. (Canceled)
- 25. (Canceled)
- 26. (Currently Amended) A method of filling an endodontically prepared root canal of a tooth comprising:

applying filler material to the external surface of a distal portion of an elongated structural shaft, the shaft having sufficient rigidity to serve as a vehicle for carrying said filler material into lowermost portions of a root canal;

inserting said proximal portion of said shaft having said filler material thereon into the root canal; and

applying a beam in the form of a stream of energy traveling through air to said shaft to heat said shaft and cause the surface tension of said filler material to substantially decrease to cause said filler material to fill the root canal and allow said shaft to be removed leaving said filler material in the root canal.

- 27. (Previously Presented) A method according to Claim 26 including:

affixing a signal generating temperature sensor to said shaft and using a signal generated by said temperature sensor to control said application of said beam of energy to said shaft.

- 28. (Previously Presented) A method according to Claim 26 wherein said shaft is of metal.
- 29. (Previously Presented) A method according to Claim 26 wherein said shaft is of plastic or fiberglass.
- 30. (Canceled)
- 31. (Canceled)

32. (Currently Amended) An obturator system for filling an endodontically prepared tooth root canal comprising:

an elongated shaft having a proximal portion and a smooth distal portion;

filler material applied onto said shaft distal portion, said shaft having sufficient rigidity to serve as a vehicle for carrying said filler material thereon into the lowermost portions of a tooth root canal; and

a source providing a beam in the form of a stream of energy traveling through air that is applied to said shaft to heat said shaft so that thereby the surface tension of said filler material is substantially decreased to allow said shaft to be removed leaving said filler material in the root canal.

33. (Canceled)

34. (Canceled)

35. (Previously Presented) An obturator system according to Claim 32 wherein said source of energy is a laser.

36. (Canceled)

37. (Previously Presented) An obturator system according to Claim 32 including a signal generating temperature sensor affixed to said shaft.

38. (Previously Presented) An obturator system according to Claim 37 including:

circuitry including said temperature sensor by which said beam of energy is controlled in response to the temperature of said shaft.

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Previously Presented) A method according to Claim 26 wherein said step of applying a beam of energy to said shaft is accomplished employing electromagnetic energy.
43. (Currently Amended) An obturator system for filing an endodontically prepared tooth root canal comprising:
- an elongated heat conductible shaft having a proximal portion and a smooth distal portion;
- filler material applied onto said shaft distal portion, said shaft having sufficient rigidity to serve as a vehicle for carrying said filler material thereon and compact the filler material into the lowermost portions of a tooth root canal and;
- an energy ~~radiation~~ beam generator positioned adjacent said shaft distal portion whereby said shaft may be heated by ~~radiated~~ a beam in the form of a stream of energy traveling through air to reduce surface tension of said filler material permitting said shaft to be removed to leave said filler material compacted in said root canal.
44. (Previously Presented) An obturator system according to Claim 43 including:
- a signal generating temperature sensor affixed to said shaft.
45. (Currently Amended) An obturator system according to Claim 43 including:
- circuitry attached to said temperature sensor employed to control said energy ~~radiation~~ beam generator.
46. (Currently Amended) An obturator system according to Claim 43 wherein said energy ~~radiation-generation~~ beam generator generates electromagnetic energy.
47. (Canceled)

48. (Currently Amended) An obturator system according to Claim 43 wherein said energy ~~radiation~~ beam generator is a laser.
49. (Currently Amended) An obturator system according to Claim 43 wherein said energy ~~radiation~~ beam generator transmits a ~~beam~~ stream of energy that impinges on said shaft.